

## THE MINERAL INDUSTRY OF

# JAMAICA

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In Jamaica, limestones host deposits of bauxite and igneous rocks containing copper and gold occurrences. One-half of Jamaica's land mass is used for bauxite mining and alumina production. Bauxite and alumina were Jamaica's second leading hard currency earners, accounting for 22% of total income. Jamaica is the third largest producer of bauxite ore, after Australia and Guinea, and fourth in the production of alumina. There are also substantial deposits of gypsum, limestone, marble, silica, and natural whiting.<sup>2</sup>

A series of laws regulating mining in Jamaica was issued in 1947. In 1950, Law No. 12, the Bauxite and Alumina Industries (Encouragement) Law, was enacted.

The National Development Bank of Jamaica (NDB), established in 1981, provides financing for projects in agriculture, manufacturing, mining sectors, and tourism. The Jamaica Pre-Investment Program (JPIP), operating under the auspices of the Planning Institute of Jamaica, provides financing for prefeasibility studies for industrial, manufacturing, tourism, agricultural, and energy projects. The Trafalgar Development Bank (TDB), a privately owned Jamaican development bank, provides medium- and long-term financing and limited equity investment for manufacturing, agricultural, tourism, mining and quarrying, and construction projects.

The Jamaican bauxite industry is covered by a number of environmental and mining laws dating back to 1947. The Natural Resources Conservation Agency (NRCA), part of the Ministry of Public Service and the Environment, oversees all activities potentially affecting the environment. Environmental laws are still being prepared and NRCA relies on the United States Environmental Protection Agency standards for air and water quality.<sup>3</sup> Pollution from the bauxite industry is a long-standing environmental issue, while regulation and private-sector measures are being addressed.<sup>4</sup> All companies in Jamaica monitor dust and suspended particulates, sodium and Ph levels in groundwater, and sulfur dioxide emissions.<sup>5</sup> Oil spills in refineries, and oil burning in powerplants and alumina calcining plants also contributed to air pollution.<sup>6</sup>

Jamaica remained an important world producer of bauxite and alumina in 1994. Production has stayed about the same for the past 5 years, with some minor deviations caused by the fluctuating prices for these commodities. Jamaica also produced cement, gypsum, lime, marble, salt, sand and gravel, silica sand, and stone. Limestone was used

domestically in the production of lime, road construction, and for other purposes. (*See table 1.*)

The United States was Jamaica's major market for bauxite and alumina in 1994. Jamaica also traded with Canada, Trinidad and Tobago, and the United Kingdom. Jamaica imported all of its crude oil for petroleum refinery products, primarily from Mexico and Venezuela, and a small amount from Ecuador.

In early 1994, the Jamaican Government declared the U.S. dollar and other foreign currency as legal tender on the island in order to deregulate further Jamaica's economy and liberalize the foreign exchange market. Previously, Jamaicans had to exchange foreign currency for Jamaican currency at banks and other dealers authorized by the Government.<sup>7</sup>

The Jamaican Government retained part ownership of mining companies on the island. (*See table 2.*)

The laws and regulations controlling mining and prospecting were administered by the Commissioner of Mines. Exploration assessment records were maintained by the Ministry of Production, Mining and Commerce.

The International Bauxite Association (IBA), established in 1974 in Jamaica, was dissolved on December 31, 1994. The IBA had been acting as a database for its members, allowing them to exchange information and ideas on the state of the industry. Financial support for the IBA came from its members, based on production volume.<sup>8</sup>

Bauxite deposits and alumina plants in Jamaica are in the north and south-central areas of the island. About 36% of the bauxite ore was shipped unprocessed, primarily to the United States. The balance was processed locally at three refineries and exported as alumina to the North American and European smelters. Increased 1994 alumina production was attributed to increased efficiency and expansion at two alumina plants.<sup>9</sup>

Bauxite production in Jamaica also set a record in 1994, mainly as a result of higher demand from refiners that have expanded capacity.<sup>10</sup> Responding to drops in world aluminum prices, Kaiser Jamaica Bauxite Co., Ltd. used early retirement awards and cash incentives to lay off 61 of its 730 workers in early 1994. In late 1994, Kaiser announced it was cutting staff by another 20%, claiming its worst results since 1982. The announcement followed a serious transportation accident in July in which a 23-car bauxite train was derailed, allegedly due to vandalism. The derailment cost the company an estimated \$6 million in

repairs and lost capacity.<sup>11</sup>

Alumina Partners of Jamaica's (Alpart) alumina plant was expanded in 1994, from 1.2 million metric tons annually (Mmt/a) to 1.45 Mmt/a. Alcan Jamaica Co.'s plant capacity was being expanded to 1.5 Mmt/a. The third-largest refinery, Jamalco, had a capacity of 750,000 metric tons annually (mt/a) and was also being expanded to 1 Mmt/a.<sup>12</sup>

Vancouver, Canada-based Golden Ring Resources Ltd. continued its exploration program for copper and gold in Jamaica. The Camel Hill, Connors, and Geo Hill copper and gold prospects in the Bellas Gate area reportedly were the targets. Other Canadian companies were exploring for gold in central Jamaica, including Citadel Gold Mines, Galico Resources, Tantalus Resources, and Trev Corp. Also, Clarendon Mining Ltd., a subsidiary of Orvana Minerals Corp., Vancouver, Canada, was searching for gold.<sup>13</sup>

Caribbean Cement Co. Ltd. (CCC) was the only operating cement company in Jamaica. About 6% of its production was exported to neighboring islands. Jamaica also produced gypsum, lime, marble, salt, construction and industrial sand and gravel, and crushed stone. Jamaica Gypsum and Quarries Ltd. was acquired by the CCC in 1990, thus increasing its production to an estimated 1.7 Mmt/a in 1994.

Jamaica mined marble in the Edge Hill Quarry in Hellshire, St. Catherine Parish, operated by the Hellshire Marble Ltd., headquartered in Kingston. Marble Farms Ltd., which was recently incorporated, owns vast reserves of Jamaican marble at Red Ground, also in St. Catherine Parish.

Jamaica imported crude oil and petroleum products from Mexico and Venezuela. Petroleum Corp. of Jamaica (PETROJAM Ltd.), a Government company, is the only petroleum producer in Jamaica. Petroleum products consumption is linked closely to the bauxite-alumina sector, using about 45% of all petroleum products. Commercial energy consumption in Jamaica was about 90%, represented by petroleum, 88%; coal, 1.6%; and hydropower, 0.4%.<sup>14</sup>

The Jamaican Government put up for sale its only refinery in mid-1994 as part of the continuing divestment of state-owned enterprises.<sup>15</sup>

The country's mining sector transported ore by road, railroad, and conveyor. Railroads, 294 kilometers in length, carried most of Jamaica's bauxite and alumina. Jamaican bauxite mines are close to shipping ports, which are relatively near to U.S. refiners and smelters. Jamaica has two major ports, one at Kingston and the other at Montego Bay. Bauxite was exported from Port Rhoades and Rocky Point, while alumina was shipped from Port Kaiser and Port Esquivel.

To reduce the country's dependence on imported fuel and vulnerability to fuel price fluctuations, the Government of Jamaica in 1994 emphasized fuel conservation and diversification of energy sources, such as peat, coal, hydropower, wind, solar, and biomass, during the next 5-to-

10 years.

The Jamaican Government has pursued a program of reforms, including a privatization program, tax reforms, liberalization of trade, and exchange rate regimes. The Government stated it is committed, in particular, to the privatization and deregulation of the energy sector, including the Jamaica Public Service Co. The transmission and distribution of electricity is expected to be separated from generation and, therefore, will be privatized separately.

<sup>1</sup>Text prepared Mar. 1995.

<sup>2</sup>Latin American Economy & Business (London). Oct. 1994, p. 20; The World Bank (Washington, DC). Country Briefs, June 1994, p. 895.

<sup>3</sup>U.S. Department of State (Washington, DC). Incoming Telegram, Mar. 25, 1994.

<sup>4</sup>The World Bank (Washington, DC). Country Briefs, June 1994, p. 896.

<sup>5</sup>Work cited in footnote 3.

<sup>6</sup>Work cited in footnote 3.

<sup>7</sup>Journal of Commerce (New York). May, 26, 1994, p. 6B.

<sup>8</sup>———. July 26, 1994, p. 5B; Latin American Economy & Business (London). Sept. 1994, p. 22; U.S./Latin

Trade (Miami, Florida). Sept. 1994, p. 19.

<sup>9</sup>Latin American Mining Letter (London). June 30, 1994, p. 2.

<sup>10</sup>———. Oct. 28, 1994, p. 6, Nov. 8, 1994, p. 5.

<sup>11</sup>American Metal Market (New York). Jan. 12, 1995, p. 4; U.S. State Department (Washington, DC). Incoming Telegram, Apr. 8, 1994.

<sup>12</sup>Financial Times (London). Oct. 28, 1994, p. 42; Journal of Commerce (New York). Jan. 20, 1995, p. 10B.

<sup>13</sup>Latino Minería (San Diego). Aug. 1994, p. 12; Mining Journal (London). Feb. 11 1994, p. 165, May 20, 1994, p. 368.

<sup>14</sup>World Bank (Washington, DC). Report No. 12470-JM, Mar. 29, 1994, p. 1.

<sup>15</sup>Journal of Commerce (New York). Sept. 8, 1994, p. 4B.

## Major Sources of Information

### Commissioner of Mines

Ministry of Production, Mining and Commerce  
P.O. Box 189, Hope Gardens  
Kingston 6, Jamaica, WI  
Phone: (809) 927-1936

### The Jamaican Bauxite Institute, Ltd.

P.O. Box 355, Hope Gardens  
Kingston 6, Jamaica, WI  
Phone: (809) 927-2071; Fax: (809) 927-1159

### Petroleum Corporation of Jamaica

12 Ocean Boulevard  
Kingston 6, Jamaica, WI

### Planning Institute of Jamaica

8 Ocean Boulevard  
Kingston, Jamaica  
Phone: (809) 967-3689-92; Fax: (809) 967-3688

## Major Publications

International Bauxite Association: IBA Review, Quarterly.

The Jamaican Bauxite Institute: Annual report and JBI Journal, annual.

The Jamaican Bauxite Institute: JBI Journal, annual.

Planning Institute of Jamaica: Economic and Social Survey Jamaica, annual report.

TABLE 1  
JAMAICA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993	1994 e/
<b>Aluminum:</b>					
Bauxite, dry equivalent, gross weight	10,900	11,600	11,300	11,400 r/	11,800 3/
Alumina	2,870	3,020	2,920	2,990	3,180 3/
Cement, hydraulic	442	395	481	451 r/	400
Gypsum	82,200	136,000	145,000	152,000 r/	152,000
Iron and steel: Steel, crude e/	23,800 3/	25,000	25,000	24,500	24,500
Lead, refined (secondary) e/	1,000	1,000	1,000	800	800
Lime e/	90,000	95,000	179,000 3/	151,000 r/ 3/	151,000
Petroleum refinery products	8,200	6,890	7,000 e/	7,000 e/	7,500
Salt e/	12,100 3/	14,000	14,000	13,500	13,500
Silica sand	16,600	15,600	15,600	21,300 r/	21,300
<b>Stone:</b>					
Limestone	6,050	5,480	4,300	4,110 r/	4,500
Marble, cut and/or polished	4,000	12,000	4,620	5,780 r/	6,000
Marl and fill	7,830	2,950	3,000 e/	3,630 r/	4,000
Sand and gravel	2,380	1,210	1,350	1,550 r/	1,600

e/ Estimated. r/ Revised.

1/ Table includes data available through Mar. 17, 1995.

2/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines to three significant digits.

3/ Reported figure.

TABLE 2  
JAMAICA: STRUCTURE OF THE MINERAL INDUSTRY FOR 1994

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	Jamalco (Aluminum Co. of America/Government, 50%; Clarendon Alumina Production Ltd., 50%)	Halse Hall plant at Clarendon, Clarendon Parish	750
Do.	Alumina Partners of Jamaica (Alpart) (Kaiser Aluminum Corp., 65%; Hydro Aluminum Jamaica AS, 35%)	Nain, St. Elizabeth Parish	1,450
Do.	Alcan Jamaica Co. (JAMALCAN) (Alcan Aluminum Ltd. Canada, 93%; Government, 7%)	Kirkvine, Manchester Parish and Ewarton, St. Catherine Parish	548 548
Bauxite	JAMALCAN Bauxite Mines	St. Ann and St. Catherine Parishes	1,600
Do.	Jamaica Bauxite Mining Ltd. Lydford Mines	Lydford, St. Ann Parish	2,500
Do.	Jamalco Bauxite Mines	Mocho Mountains, Clarendon Parish	2,500
Do.	Kaiser Jamaica Bauxite Co., Ltd.	Kirkvine, Manchester Parish; Water Valley, Discovery Bay, St. Ann Parish	4,500
Cement	Caribbean Cement Co. Ltd.	Rockfort, St. Andrews Parish	1,700
Petroleum products	Petrojam Ltd. (Petroleum Corp. of Jamaica, 100%)	Kingston, St. Andrews Parish	9,000